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|-----------------|-------------|----------------------|---------------------|------------------|
| 09/976,548      | 10/12/2001  | Micheal J. McAlister | 83589DMW            | 1493             |

7590 11/05/2004  
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EXAMINER

TILLERY, RASHAWN N

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2612

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/976,548

Applicant(s)

MCALISTER, MICHEAL J.

Examiner

Rashawn N Tillery

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/12/01.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Katayama et al (US5699108).

Regarding claims 1 and 4, Katayama discloses, in figures 1 and 8A, a camera arrangement for capturing a wide field image of a scene composed of left and right overlapping fields of views, the camera arrangement comprising:

a first camera (202) having an optical section imaging the right field of view along a first optical axis (201) onto a first image sensor (203);

a second camera (102) having an optical section imaging a left field of view along a second optical axis (101) onto a second image sensor (103); and

a camera mount (10) for supporting the first camera at an angle adjacent to the second camera such that their optical axes intersect between the camera mount and the captured scene and the left side of the right field of view overlaps the right side of the left field of view, thereby creating an overlap region where the left and right fields of view obtained from the respective image sensors may be combined to form the wide field view of the scene (see col. 6, line 10 to col. 7, line 6).

Regarding claims 2 and 5, Katayama discloses, in figures 7A, 8A and 9A, the angle provided by the camera mount between the first and second cameras is sufficient to cause approximately a 10 percent overlap between the fields of view (the examiner notes that by adjusting the convergence angle, Katayama is able to approximate a 10 percent overlap between the cameras, see col. 3, lines 25-65).

Regarding claim 3, Katayama discloses the cameras each provide a predetermined resolution and the angle provided by the camera mount between the first and second camera is sufficient to cause approximately a doubling in resolution between the predetermined resolution of the cameras and a resolution of the wide field image since stitching together 2 overlapping images inherently doubles resolution.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katayama et al.

Regarding claim 6, Katayama discloses, in figures 1 and 4A, a image recording system for capturing a wide field image of a scene composed of left and right overlapping fields of views, the image recording system comprising:

a first video camera (202) having an optical section imaging the right field of view along a first optical axis (201) onto a first image sensor (203);

a second video camera (102) having an optical section imaging a left field of view along a second optical axis (101) onto a second image sensor (103); and

means (10) for supporting the first camera at an angle adjacent to the second camera such that their optical axes intersect between the camera mount and the captured scene and the left side of the right field of view overlaps the right side of the left field of view, thereby creating an overlap region where the left and right fields of view obtained from the respective image sensors may be combined to form the wide field view of the scene (see col. 6, line 10 to col. 7, line 6); and

a digital processor (12) including an algorithm for stitching the left and right fields of view together in the overlap region, thereby providing a wide screen image.

Katayama does not expressly disclose a film image recording system. Official Notice is taken that film cameras and hybrid film cameras are well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made modify Katayama's teachings by implementing a film camera as an obvious variation since digital and film cameras are known to be used in combination or interchangeably.

Regarding claim 7, Katayama discloses, in figures 7A, 8A and 9A, the angle provided by the camera mount between the first and second cameras is sufficient to cause approximately a 10 percent overlap between the fields of view (the examiner

notes that by adjusting the convergence angle, Katayama is able to approximate a 10 percent overlap between the cameras, see col. 3, lines 25-65).

Regarding claim 8, Katayama discloses the cameras each provide a predetermined resolution and the angle provided by the camera mount between the first and second camera is sufficient to cause approximately a doubling in resolution between the predetermined resolution of the cameras and a resolution of the wide field image since stitching together 2 overlapping images inherently doubles resolution.

### ***Conclusion***

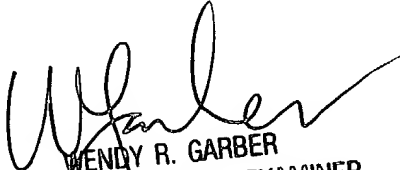
1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sudo teaches a stereoscopic television system. Henley teaches a panoramic imaging system. Wilm et al teach an imagines system with a wide angle lens and telephoto lens. Grage et al teach an imaging system with a wide angle lens and a telephoto lens. Van Sant et al teach a camera system with rotatably mounted cameras. McIntyre et al teach a stereoscopic camera. Kamei teaches a camera system capable of overlapping images of plural cameras. Muramoto et al teach plural cameras with overlapping regions.
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashawn N Tillery whose telephone number is 703-305-0627. The examiner can normally be reached on 9AM-6:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RNT



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